FORM PTO-1390 (Modified) (REV 11-2000) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER: **RCA 89470**

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR): 10/018070

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/US00/11373	**28 April 2000 (28.04.00)**	**30 April 1999 (30.04.99)**

TITLE OF INVENTION

ADVERTISEMENT SELECTION BASED ON USER ACTION IN AN ELECTRONIC PROGRAM GUIDE

APPLICANT(S) FOR DO/EO/US

Wanda Green Thompson and Michael Wayne Johnson

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include itens (5), (6), (9) and (24) indicated below.
4. ☐ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
   a. ☐ is attached hereto (required only if not communicated by the International Bureau).
   b. ☒ has been communicated by the International Bureau.
   c. ☒ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
   a. ☐ is attached hereto.
   b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
   a. ☐ are attached hereto (required only if not communicated by the International Bureau).
   b. ☐ have been communicated by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11. ☒ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☒ A copy of the International Search Report (PCT/ISA/210).

Items 13 to 20 below concern document(s) or information included:

13. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☒ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☐ A change of power of attorney and/or address letter.
19. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
20. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
21. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
22. ☒ Certificate of Mailing by Express Mail
23. ☒ Other items or information:

Return Postcard Receipt

EXPRESS MAIL NO: EL 902321210 **DATE OF DEPOSIT** October 25, 2001

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER
10/018070	PCT/US00/11373	RCA 89470

24. The following fees are submitted:.	CALCULATIONS PTO USE ONLY	
BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :		
☐ Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO **$1040.00**		
☒ International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO **$890.00**		
☐ International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO **$740.00**		
☐ International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) **$710.00**		
☐ International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) **$100.00**		
ENTER APPROPRIATE BASIC FEE AMOUNT =	**$890.00**	
Surcharge of **$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).	**$0.00**	

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	5 - 20 =	0	x $18.00	**$0.00**	
Independent claims	1 - 3 =	0	x $84.00	**$0.00**	
Multiple Dependent Claims **(check if applicable)**.			☐	**$0.00**	
TOTAL OF ABOVE CALCULATIONS =				**$890.00**	
☐ Applicant claims small entity status. See 37 CFR 1.27). The fees indicated above are reduced by 1/2.				**$0.00**	
SUBTOTAL =				**$890.00**	
Processing fee of **$130.00** for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (f)). +				**$0.00**	
TOTAL NATIONAL FEE =				**$890.00**	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) **(check if applicable).** ☐				**$40.00**	
TOTAL FEES ENCLOSED =				**$930.00**	
				Amount to be: refunded	$
				charged	$ 930.00

a. ☐ A check in the amount of _____ to cover the above fees is enclosed.

b. ☒ Please charge my Deposit Account No. **07-0832** in the amount of **$930.00** to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. **07-0832** A duplicate copy of this sheet is enclosed.

d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Mr. Joseph S. Tripoli
THOMSON multimedia Licensing Inc.
Patent Department
PO Box 5312
Princeton, New Jersey 08540

SIGNATURE

FRANK Y. LIAO
NAME

40,065
REGISTRATION NUMBER

October 25, 2001
DATE

EXPRESS MAIL LABEL NO. EL902321210US RCA 89470

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#3/1a

Applicant : Wanda Green Thompson and Michael Wayne Johnson

Filed : Herewith

For : ADVERTISEMENT SELECTION BASED ON USER ACTION IN AN ELECTRONIC PROGRAM GUIDE

PRELIMINARY AMENDMENT

Hon. Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Sir:

In the US national phase application of PCT/US00/11373 filed herewith, please enter the following amendments:

IN THE SPECIFICATION:

Please amend the specification as follows:

On Page 1 (which is the annex of the International Preliminary Examination Report), line 3, please insert the following paragraph:

-- This application claims the benefit of U.S. provisional application serial no. 60/131,885 filed April 30, 1999, which is hereby incorporated herein by reference, and which claims the benefit under 35 U.S.C. § 365 of International Application PCT/US00/11373, filed April 28, 2000, which was published in accordance with PCT Article 21(2) on November 9, 2000 in English.--

IN THE ABSTRACT:

Please add the following Abstract.

-- A method of displaying a targeted advertisement on an electronic program guide based on consumer navigation is presented. A plurality of advertisements are received in a television apparatus through an auxiliary source. The received advertisements are stored along with their respective descriptor. Navigation of a user of the electronic program guide is monitored. Then a selected advertisement from the stored advertisements is displayed in response to the navigation monitoring. --

REMARKS

The specification has been amended to include a reference to the priority applications.

To meet the requirements of the United States, the Abstract (as originally filed in the PCT application) is added.

No fee is believed to have been incurred by virtue of this amendment. However if a fee is incurred on the basis of this amendment, please charge such fee against deposit account 07-0832

Respectfully submitted,
Wanda Green Thompson
Michael Wayne Johnson

F. Liao

Frank Y. Liao
Attorney for Applicant
Registration No. 40,065
609/734-9497

THOMSON multimedia Licensing Inc.
Patent Operation
PO Box 5312
Princeton, NJ 08543-5312

Date: Oct. 25, 2001

ADVERTISEMENT SELECTION BASED ON USER ACTION IN AN ELECTRONIC PROGRAM GUIDE

FIELD OF INVENTION

The present invention generally relates to the field of electronic program guide processing and display, and more particularly, to a system and method of automatically displaying a targeted advertisement while a user is navigating within an electronic program guide.

BACKGROUND OF INVENITON

Electronic devices such as televisions or VCRs require a control system that includes a user interface system. Typically, a user interface system provides information to a user and simplifies use of the device. One example of a user interface is an electronic menuing system in a television system. The menuing system allows a user to easily interact with and control a television system that is becoming more complex.

An example of a menuing system which allows user to navigate in today's television environment where there are many channels is an Electronic Program Guide (EPG). EPGs are very useful for providing program information while a consumer is watching TV. These EPGs are generally supported by advertising displayed along with the program information. These advertisements are sent as part of the EPG data and are displayed in a program guide screen based on time descriptors in the advertisement. These time descriptors are used by the receiver to control when the advertisement is made visible in the guide display.

In addition, WO 98/00975 describes a system which allows a user to select linked still images displayed on the television screen to view the desired information. When a linked still image is selected, the television displays the captured still video image corresponding to the selection. Also, U.S. Pat. No. 5,710,601 describes a system that in response to a user selecting a program within an electronic program guide will play a short video clip of that selected program. These systems clearly require that a user to proactively select the information in order for that information to be displayed. None of the systems describe a targeted advertisement to be dynamically displayed based on the system automatically monitoring the navigation of the user. That is the user has to merely focusing or highlighting a program in an electronic program guide, without actually selecting the program for a targeted advertisement associated with that program to be displayed.

AMENDED SHEET

advertisement on an electronic program guide based on consumer navigation is presented, comprising the steps of:

receiving a plurality of advertisements through an auxiliary source in a television apparatus.

storing the received advertisements along with their respective descriptor;

monitoring navigation of a user of the electronic program guide;

displaying a selected advertisement from said stored advertisements in response to the navigation monitoring.

BRIEF DESCRIPTION OF THE DRAWING

In the drawing:

Figure 1 shows an exemplary architecture of a television system of the present invention.

Figure 2 shows an exemplary manner in which auxiliary information may be displayed with the program content associated with a television signal.

Figure 3 shows an exemplary manner in which auxiliary information may be displayed with an electronic program guide.

Figure 4 shows an exemplary flow diagram according to the present invention.

Figure 5 is also an exemplary flow diagram according to the present invention.

DETAILED DESCRIPTION

An exemplary embodiment of the present invention is shown in Fig. 1. The system comprises a video processing apparatus 101 capable of communicating television program signals and electronic program guide (EPG) signals each enhanced with auxiliary information, such as advertisements, by a television communication channel 103 such as terrestrial broadcast, cable distribution, satellite broadcast or the like. An example of such a video processing apparatus may be a satellite receiver set-top box, similar to that designed and manufactured by Thomson Consumer Electronics, of Indianapolis, Indiana, U.S.A., for receiving DirecTV™ satellite service provided by Hughes Electronics, and is described in detail, for example, in a PCT application bearing International Publication Number WO 98/56173.

The system shown in Fig. 1 receives the enhanced television program and EPG signals via a video server 102, which combines signal sources representing both television program signal source 104 and electronic program guide signal source 105. The television receiver 101 displays the auxiliary information on a monitor 106 connected to the television receiver 101 in association with the displayed video portion corresponding to a selected television program signal and the displayed EPG derived from the EPG signal. Figure 2 shows the manner in which auxiliary information may be displayed with the program content associated with a television signal; and Figure 3 shows the manner in which auxiliary information may be displayed with an electronic program guide.

When the auxiliary information such as advertisement is selected by a user via a control system of a television receiver such as a remote control system119, the system communicates information concerning the selection from the television receiver via a back channel such as a modem 106, to a "store and forward" server 110.

The store and forward server 110 collects and categorizes the selection information 114 from receiver 101 into packages related to the origin of the auxiliary information, and at a later time communicates the selected information back to a designated party, such as the originator of the auxiliary information. The time delay allows for the selection of the transmission times (e.g., at night) to minimize costs. The server 110 also determines the signal source associated with the selected auxiliary information (i.e., the source of the television signal or the EPG signal) and the number of times the auxiliary information has been selected. The number is used by the operator of the server to determine a fee to be paid, e.g., by the originator of the auxiliary information. This information may also be used to selectively determine the type of auxiliary information to be transmitted to or displayed for the user.

The selection information 114 communicated to the store and forward server from a television receiver may include identification data 113 for identifying the television receiver 101 from which the selection information 114 was sent. Such a provision allows the originator of the auxiliary information to identify and communicate with the consumers making the selection for the

purposes of providing additional information and making sales. In a related feature, the provision of identifying the television receiver through the back channel may allow an audience survey company to monitor the viewing habits of the consumers.

Various signal formats for embedding the auxiliary information in the television program signals and EPG signals are available. For example, a protocol known as ATVEF proposed by the Advance Television Enhancement Forum, an alliance of television communication and computer companies is advantageous. The protocol is based on the HTML (Hypertext Markup Language) utilized in the Internet. The ATVEF protocol may be used with both analog and digital television systems. Other protocols may be used. In an analog television system, the auxiliary information may be included in the vertical blanking interval (VBI) of the television program signal, together with the EPG signal. In a digital television system the auxiliary information may be "packetized" and inserted into the digital data stream including the television program data and EPG data.

Another tier or feature level of the television system may also include provisions for communicating E-mail information, e.g., via the store and forward sever, also enhanced with auxiliary information, such as advertisements, to television receivers. In that case, the store and forward server also collects and categorizes the selection information associated with e-mail and quantifies the selection information for revenue tracking purposes. In this tier, providing auxiliary information, such as advertisements, subsidizes the cost of the E-mail service and may, in fact, allow for "free-mail". However, since the server delays the transmission of data so as to be economic, still other tiers of the system may provide for accelerated E-mail communication service and possibly also connection to the Internet upon the payment of fees by the consumer. Such an e-mail server 111 and Internet server 112 are shown in Fig. 1.

The auxiliary information may also contain software for operating the television receiver or for providing an additional functionality to it, such as video games or personal computer functions including, e.g., word processing and spread sheet programs. To the extent that the television receiver itself has insufficient data processing capability itself, e.g., insufficient memory, such data

processing may be shared from a personal computer linked to the television receiver via a bus.

Another aspect of such an apparatus provides for integrating a web browser and either an Ethernet or HomePNA interface for networking. Connecting the apparatus to a personal computer (PC) enhances the functionality by being able to download software applications, such as a word processor or spreadsheet, from the PC. Further, the apparatus could utilize the PC for data storage or for printing. A network connection would enable storing a URL directly and/or automatically on the PC.

In Figure 1, a television program signal source 104 combines a television program signal 104a with an auxiliary information signal 104b, such as an advertisement, to produce an enhanced television program signal 115 that is supplied to the video server 102. Also supplied to the server is an enhanced electronic program guide (EPG) signal from an electronic program guide signal source. The enhanced EPG signal represents a combination of an EPG signal 116 representative of program guide information 105a and a second auxiliary information signal 105a, such as an advertisement. Thus, auxiliary information such as advertisements may be included with either or both of the video and EPG signals.

The video server 116 communicates a signal comprising the enhanced television signal and/or the enhanced EPG signal to a video signal processing device, such as TV receiver 101, via a television communication channel. As described above, a back channel from the video signal processing device, e.g., TV, is provided via means of a device such as a modem 106. The back channel couples the video signal processing device 101 to a store and forward server 110 where data is stored and processed before being forwarded to other destinations. For example, packets of data may be forwarded to advertisers or others communicating auxiliary information to a viewer. The store and forward server 110 also provides a link between the email server 111 and internet server 112 that provide respective email and internet connection services to users in accordance with the tier of service to which the user subscribes. An auxiliary information signal may also be coupled to the system via the email server 111.

In FIG. 2, auxiliary information, such as advertisements for the television program "Friends" 205 and for Carnival Cruise Lines 206, is shown displayed with EPG information 210 and with video program information 215 such as the television program "ER". The video program window 215 could be larger or smaller as could the display regions associated with the auxiliary information 205 or 206 and the EPG information 215. Also, three types of display regions are shown simultaneously in FIG. 2 (i.e., video or television program, auxiliary information, and EPG regions), a display might include only one or only two of the three regions. For example, FIG. 3 shows auxiliary information, such as advertisements 305 and 306 displayed with EPG information 310 and without video or television program information.

As discussed above, program guide information are being provided to set-top boxes and televisions in satellite, cable, terrestrial, etc. systems to include, for example, advertisements. These advertisements may either be hard-coded into the receiving unit's software, or they are downloaded via the auxiliary signal distribution system.

As mentioned previously, current systems display advertisements in a program guide screen based on time descriptors in the advertisement. These time descriptors are used by the receiver to control when the advertisement is made visible in the guide display. This method provides for poor control of advertisement exposure. It is the responsibility of the distribution system to define, using time descriptors, when an ad is to be displayed, without knowing any habit of the viewers. Furthermore, the time descriptors will not allow the presentation of the ads to be synchronized with the consumer's navigation within a program guide display.

In accordance with the present invention, the present inventors recognize that a consumer navigating through a program guide display, his or her focus changes from one program to another. Therefore, the guide advertisements should be adjusts accordingly, to achieve the maximum results. If the consumer is attracted by the advertisement, he or she is only one or two button presses from viewing the advertised program.

The present method of channel and time specific advertisement placement can be done using information being displayed in the program guide screen as well as new descriptors in the advertisement's data. The channel numbers of the channels being displayed in the guide along with new descriptors in the advertisement's data such as a Channel Id and/or Program Id, can be used to present a channel/program-specific advertisement. This allows for the following. When the consumer scrolls through a program guide display and highlights or is about to highlight a program on a channel, a catchy advertisement specific to that program can be started which will lure the consumer to tune to that program.

The placement of a particular advertisement in the program guide according to the present invention, may be controlled as shown, for example, in the flow chart of Fig. 4 and described in detail below. As shown in Fig. 4, when the consumer displays the program guide as shown in step 401, a software process called, for example, Advertisement Manager 400, queries the Channel and Program Specific (CPS) advertisement queue, as in step 402. This queue is maintained by a separate process as shown in Fig. 5.

The Channel and Program Specific advertisement queue process shown in Fig. 5 will obtain advertisement information from advertisement data sent as the auxiliary information signal of the enhanced television program signal 104 or electronic program guide signal source 105, as shown in step 501. In step 502, a determination is made to see whether a particular advertisement received is subject to be displayed based on consumer navigation. This is done by looking at, for example, a control bit in the advertisement data. If the determination is affirmative, as in step 504, this particular advertisement will be placed in the CPS queue to be used by Advertisement Manager 400 as described below.

Continue on step 403 of Fig. 4, the Advertisement Manager 400 check to see if CPS advertisements exist from the CPS queue. The Advertisement Manager 400 then wait for some type of consumer navigation, in step 405. This can be done, for example, by monitor the highlight position of a cruiser or user key entries on the remote. It then checks the channel and program information of each ad and compares it to the channels and programs being highlighted in the

guide screen, in step 406. This is done, for example, when the guide display is scrolled or paged with respect to time or channels or when new guide data is presented on the screen. If the channel descriptor of an ad matches one of the channels being displayed or very shortly about to be displayed, determined by monitoring the direction of scroll within the guide, the Advertisement Manager 400 compares the program descriptor of the ad with the program being displayed in the guide. If the channel and program information correspond, the ad is displayed, as in steps 406 and 407. Otherwise, the Advertisement Manager 400 continues to monitor the CPS ad queue and/or display non-CPS ads, as in steps 402, 403 and 404.

It will be readily apparent to those skilled in the art that the teachings of the present invention described above may be applied to a television, VCR, settop boxes, a video storage and playback unit such as a Tivo, etc., without departing from the true scope of the claims appended hereto.

CLAIMS

1. A method of displaying a targeted advertisement dynamically along with an electronic program guide in response to user navigation in a video apparatus, comprising the steps of:

receiving a plurality of advertisements (501);

storing the received advertisements (504);

monitoring highlighting of one of a plurality of programs by a user in the electronic program guide (405); and

displaying a corresponding advertisement selected from said plurality of advertisements in response to the user highlighting one of the plurality of programs in the electronic program guide (406;407).

2. The method of claim 1 further comprising the step of receiving a channel descriptor for a respective advertisement.

3. The method of claim 2 wherein the displaying step displays the corresponding advertisement if the associated channel descriptor matches the channel highlighted by the user in the electronic program guide.

4. The method of claim 3 further comprising the step of receiving a time descriptor.

5. The method of claim 4 wherein the displaying step displays the corresponding advertisement if the associated channel descriptor matches the channel highlighted by the user in the electronic program guide and the time descriptor matches a current time.

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 :
H04N 5/445, 7/173, 7/088 // H04H 9/00

A1

(11) International Publication Number: WO 00/67473

(43) International Publication Date: 9 November 2000 (09.11.00)

(21) International Application Number: PCT/US00/11373

(22) International Filing Date: 28 April 2000 (28.04.00)

(30) Priority Data:
60/131,885 30 April 1999 (30.04.99) US

(71) Applicant *(for all designated States except US)*: THOMSON LICENSING S.A. [FR/FR]; 46, quai Alphonse Le Gallo, F–92648 Boulogne Cedex (FR).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: SIMPSON, Wanda, Green [US/US]; 8728 Bergeson Drive, Indianapolis, IN 46278 (US); JOHNSON, Michael, Wayne [US/US]; 7316 Cobblestone West Drive, Indianapolis, IN 46236 (US).

(74) Agents: TRIPOLI, Joseph, S. et al.; Thomson Multimedia Licensing Inc., P.O. Box 5312, 2 Independence Way, Princeton, NJ 08543–5312 (US).

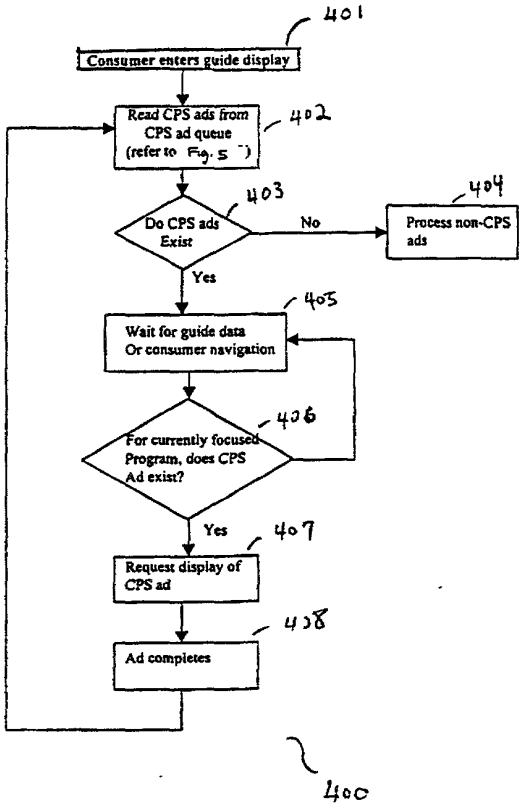
(81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: ADVERTISEMENT SELECTION BASED ON USER ACTION IN AN ELECTRONIC PROGRAM GUIDE

(57) Abstract

A method of displaying a targeted advertisement on an electronic program guide based on consumer navigation is presented. A plurality of advertisements are received in a television apparatus through an auxiliary source. The received advertisements are stored along with their respective descriptor. Navigation of a user of the electronic program guide is monitored. Then a selected advertisement from the stored advertisements is displayed in response to the navigation monitoring.



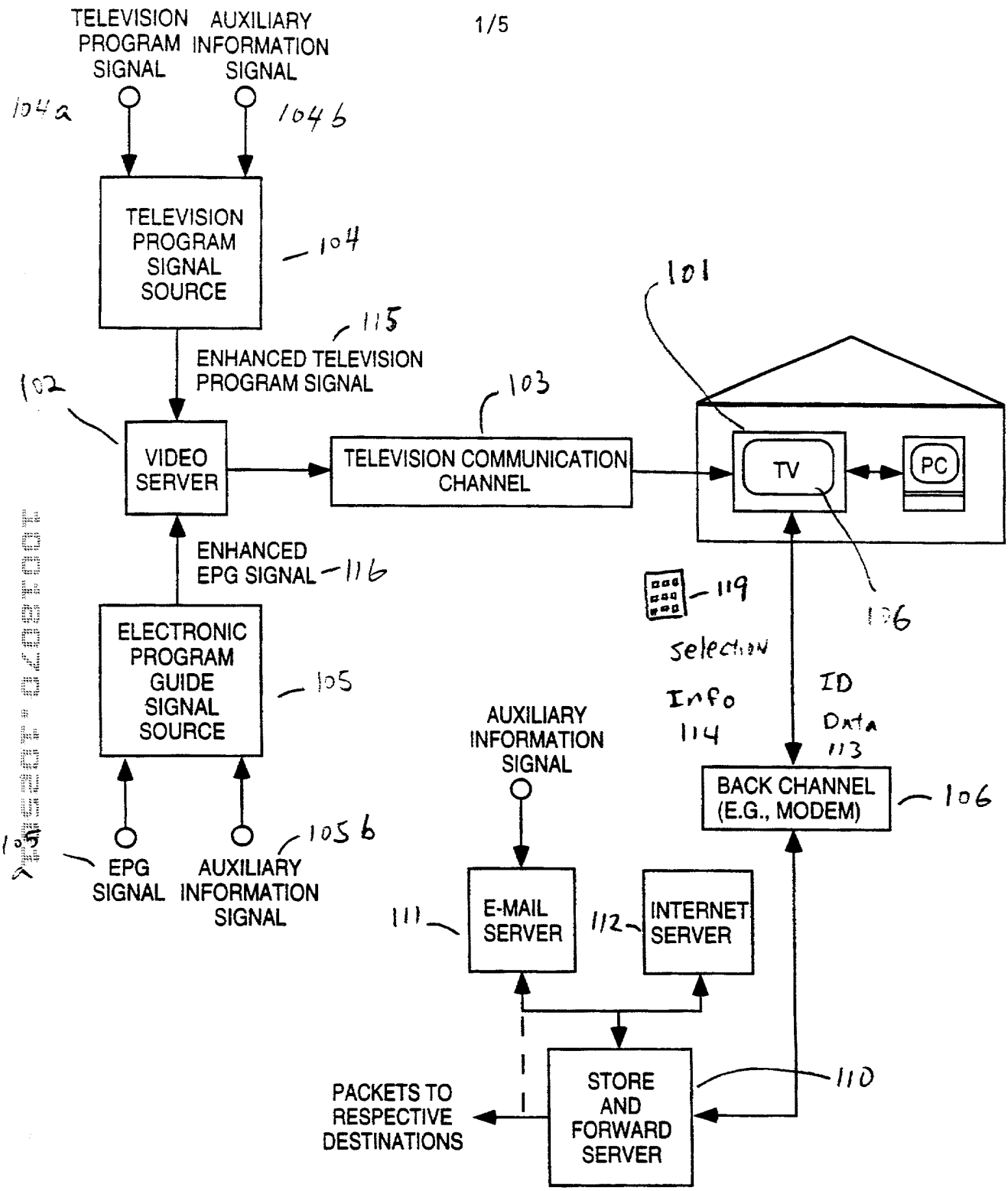

TELEVISION PROGRAM SIGNAL
AUXILIARY INFORMATION SIGNAL
104a
104b
TELEVISION PROGRAM SIGNAL SOURCE
104
115
ENHANCED TELEVISION PROGRAM SIGNAL
101
102
VIDEO SERVER
103
TELEVISION COMMUNICATION CHANNEL
TV
PC
ENHANCED EPG SIGNAL
116
119
selection Info 114
ID Data 113
ELECTRONIC PROGRAM GUIDE SIGNAL SOURCE
105
AUXILIARY INFORMATION SIGNAL
BACK CHANNEL (E.G., MODEM)
106
105a
EPG SIGNAL
105b
AUXILIARY INFORMATION SIGNAL
111
E-MAIL SERVER
112
INTERNET SERVER
PACKETS TO RESPECTIVE DESTINATIONS
STORE AND FORWARD SERVER
110

FIGURE 1

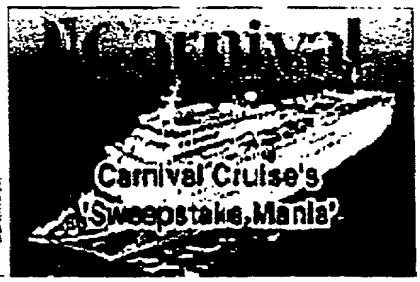

205
206
215
F·R·I·E·N·D·S
'ER'. [NR(Not Rated)]
292 NBCE ER The Tonight Show
293 FOX Judge Judy Simpsons Star Trek Voyager
294 MTV Singled Out Daria Love Phones
295 NBCW Suddenly Susan Touched By An Angel
296 ESPN Football Highlights Auto Racing
297 CNN Headline News
298 CART Scooby Doo Rug Rats Bugs Bunny
210

FIG. 2

305

306

Program Guide
Family
10:42pm
Thursday 1/7/99



"ER". Drama. George Clooney, Antnony Edwards. (1998) An anima rights group stages a hoax automobile accident, diverting valuable time from a real emergency.
Rerun. (CC)

1/7	10:30PM	11:00PM	11:30PM	12:00AM
292 NBCE	ER	The Tonight Show		
293 FOX	Judge Judy	Simpsons	Star Trek Voyager	
294 MTV	Singled Out	Daria	Love Phones	
295 NBCW	Suddenly Susan		Touched By An Angel	
296 ESPN	Football Highlights		Auto Racing	

310

FIG. 3

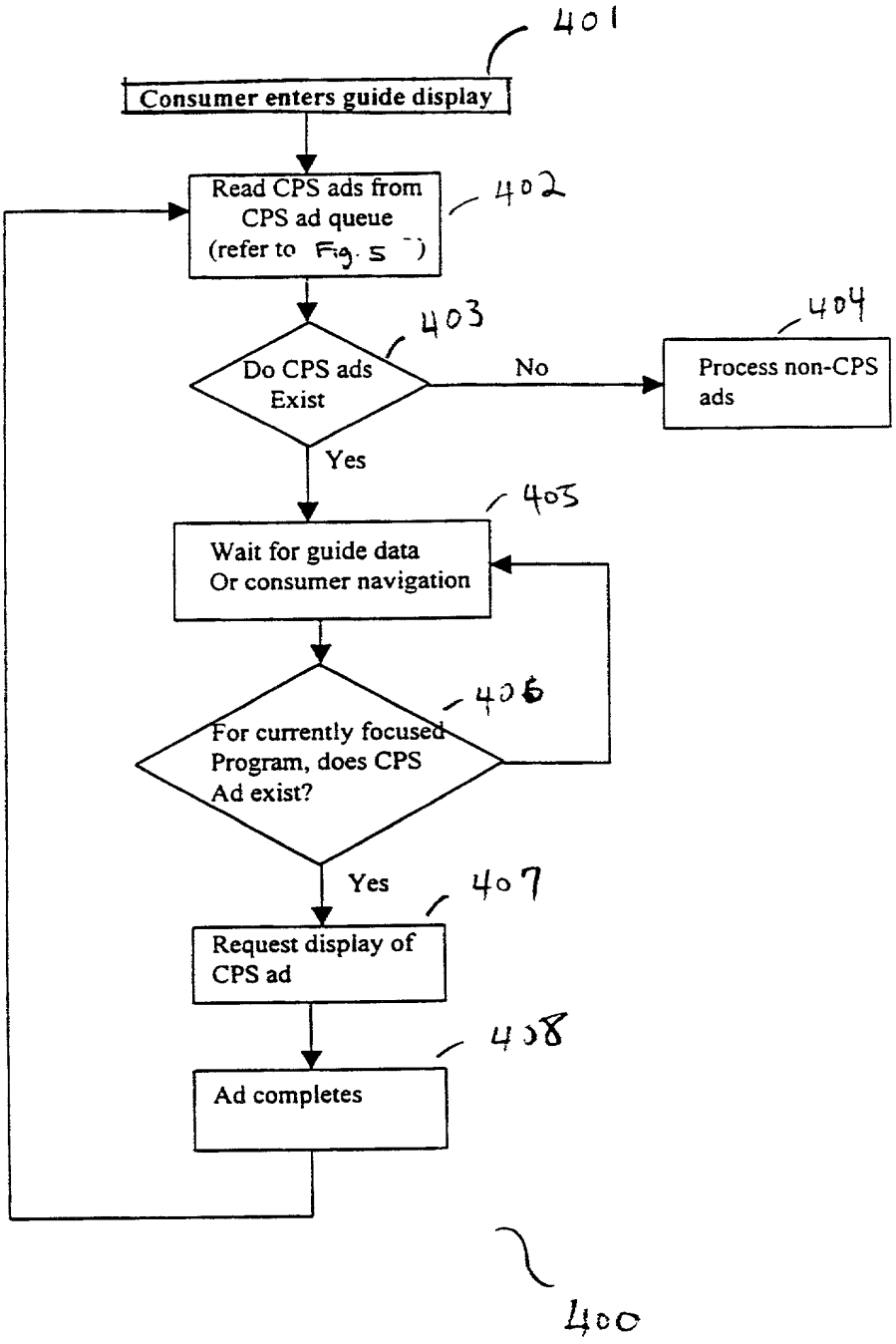

401
Consumer enters guide display
Read CPS ads from CPS ad queue (refer to Fig. 5)
402
403
Do CPS ads Exist
No
404
Process non-CPS ads
Yes
405
Wait for guide data Or consumer navigation
406
For currently focused Program, does CPS Ad exist?
Yes
407
Request display of CPS ad
408
Ad completes
400

Fig 4

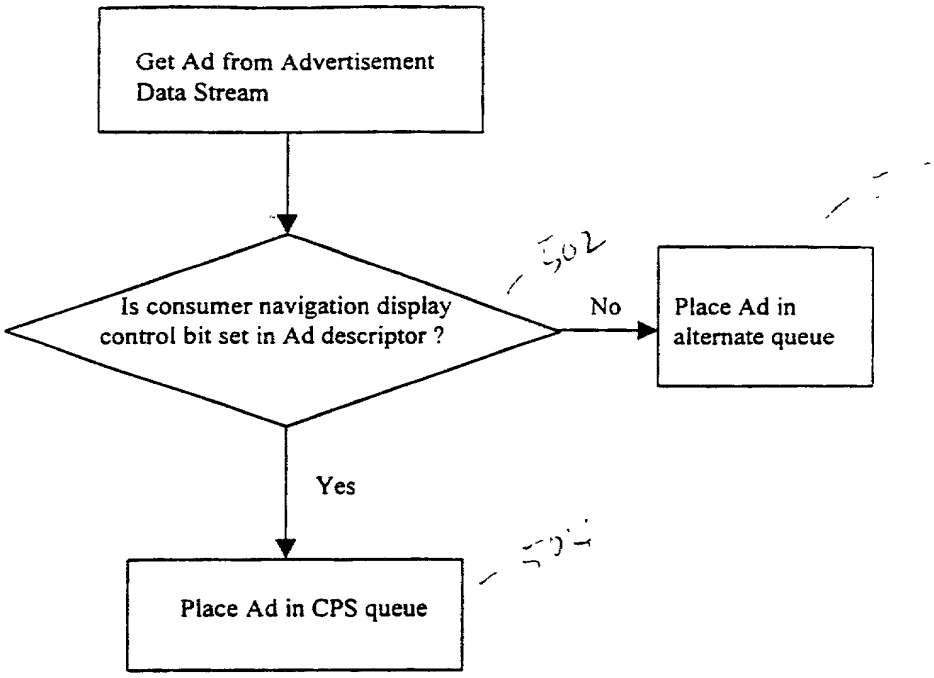

Get Ad from Advertisement Data Stream
Is consumer navigation display control bit set in Ad descriptor ?
No
Place Ad in alternate queue
Yes
Place Ad in CPS queue

Fig 5

EXPRESS MAIL EL 0[illegible]3212 US

Please type a plus sign (+) inside this box → [+]

PTO/SB/01 (10-00)
Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☐ Declaration Submitted With Initial Filing **OR** ☐ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	RCA 89470
First Named Inventor	W.G. THOMPSON etal
COMPLETE IF KNOWN	
Application Number	/
Filing Date	
Group Art Unit	
Examiner Name	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ADVERTISEMENT SELECTION BASED ON USER ACTION IN AN ELECTRONIC PROGRAM GUIDE

the specification of which *(Title of the Invention)*

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY) April 28, 2000 as United States Application Number or PCT International Application Number PCT/US00/11373 and was amended on (MM/DD/YYYY) May 23, 2001 (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as amended specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY) Country	Priority Not Claimed	Certified Copy Attached? YES	NO
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

ApplicationNumber(s)	Filing Date (MM/DD/YYYY)	
60/131,885	April 30, 1999	☐ Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → [+]

PTO/SB/01 (10-00)
Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION — Utility or Design Patent Application

Direct all correspondence to: ☐ Customer Number or Bar Code Label [ ] OR ☒ Correspondance address below

Name	JOSEPH S. TRIPOLI
Address	THOMSON MULTIMEDIA LICENSING INC.
Address	PO Box 5312

City	**State**	**ZIP**
PRINCETON	NJ	08543-5312

Country	**Telephone**	**Fax**
USA	(609) 734 - 9497	(609) 734 - 9700

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR: ☐ A petition has been filed for this unsigned inventor

Given Name	Family Name or Surname
WANDA GREEN	THOMPSON

Inventor's Signature	**Date**
Wanda Thompson	9/21/01

Residence: City	**State**	**Country**	**Citizenship**
INDIANAPOLIS	IN INDIANA	US	US

Mailing Address

Mailing Address 8728 BERGESON DRIVE

City	**State**	**ZIP**	**Country**
INDIANAPOLIS	INDIANA	46278	US

NAME OF SECOND INVENTOR: ☐ A petition has been filed for this unsigned inventor

Given Name	Family Name or Surname
MICHAEL WAYNE	JOHNSON

Inventor's Signature	**Date**
Michael Johnson	Sept 20, 2001

Residence: City	**State**	**Country**	**Citizenship**
INDIANAPOLIS	IN INDIANA	US	US

Mailing Address

Mailing Address 7316 COBBLESTONE WEST DRIVE

City	**State**	**ZIP**	**Country**
INDIANAPOLIS	INDIANA	46236	US

☐ **Additional inventors are being named on the** ____ supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.